UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,159	12/28/2000	Marc P. Kaplan	10-11-22-4-2	8689

30594   7590   01/12/2006

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. BOX 8910
RESTON, VA 20195

EXAMINER
MANNING, JOHN

ART UNIT	PAPER NUMBER
2614	

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	**Applicant(s)**
Office Action Summary	09/751,159	KAPLAN ET AL.
	Examiner	**Art Unit**	
	John Manning	2614	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____ .

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

Response to Appeal Brief

In light of the arguments presented in the Appeal Brief of October 3, 2005, the

following new grounds of rejection have been made.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by
another filed in the United States before the invention by the applicant for patent or (2) a patent
granted on an application for patent by another filed in the United States before the invention by the
applicant for patent, except that an international application filed under the treaty defined in section
351(a) shall have the effects for purposes of this subsection of an application filed in the United States
only if the international application designated the United States and was published under Article 21(2)
of such treaty in the English language.

Claims 1-5, 10-15 and 19-22 are rejected under 35 U.S.C. 102(e) as being

anticipated by Eldering (US Pat App Pub No 2005/0193410).

In regard to claim 1, Eldering discloses "targeted advertising system based on

subgroups. Different subgroups are formed based on one or more subscriber

characteristics, and different targeted advertisements transmitted to the different

subgroups. In the Internet-environment, the subgroups are formed by utilizing multicast

addresses. In cable-based and satellite-based systems, the subgroups are formed by

node configurations. The targeted advertisements are inserted in the program streams

at a centralized distribution point such as a router or a cable television head-end"

(Abstract). The claimed step of "transmitting one or more program streams from a head

end node to one or more egress nodes via the switched network" is met by Figure 4,

Item 306. "In the cable systems and satellite-based systems, the subgroups may be

created by utilizing the existing configuration of cable networks. As an example, in a

cable television system, the subscribers associated with a node may be considered to

form a subgroup. As illustrated in FIG. 4, in a traditional cable-based network 300, a

regional head end 302 is coupled to one or more local ends 304. Each local end 304

serves one or more nodes 306. Each node 306 serves one or more set-tops 308, and

each set-top 308 in turn may serve one or more television sets 310. In general, the

viewers of the information transmitted to the television sets are the subscribers"

(Paragraph 0041). The claimed step of "inserting one or more advertisements into the

one or more program streams at the one or more egress nodes for delivery to individual

subscribers such that a particular subscriber receives a program stream with an

advertisement that corresponds to demographic characteristics of that particular

subscriber" is met by Figures 4-5, Items 304 and 306. "FIG. 5 illustrates an exemplary

process of inserting target advertisements at a centralized point. FIG. 5 is particularly

applicable in an Internet environment. As shown in FIG. 5, there exists a plurality of

target advertisements 502 that may have been received from many different

advertisement servers 504. At a centralized point 506, these target advertisements are

inserted into one or more actual program streams 508 to form a plurality of presentation

streams (PS1-PS3). Each presentation stream contains a different target advertisement.

For exemplary purposes, it is shown that a sender 510 routes a first presentation stream

(PS1) via one or more routers 512 to a first receiver, labeled Receiver 1. The second

presentation stream (PS2) is being routed via another router to Receiver 2. The third

presentation stream 3 (PS3) is routed via the use of yet another router to Receivers 3

and 4. Additional routers may be used to form different subgroups and for the

transmission of the advertisements to these subgroups" (Paragraph 0051; Also see:

Paragraphs 0033, 0037, 0042 and 0050).

In regard to claim 2, Eldering discloses the claimed step of "inserting splice

points in the one or more program streams at the head end node". "Two different types

of splice points may be defined: Out Points and In Points. In Points are places in the bit

streams where it is safe to enter and start decoding that bit stream. Out points are

places where it is safe to exit the bit stream. Out Points and In Points are imaginary

points in the bit stream located between two transport stream packets. An Out Point and

an In Point may be co-located, that is, a single packet boundary may serve as both a

safe place to leave a bit stream and a safe place to enter it" (Paragraph 0065).

In regard to claim 3, Eldering discloses the claimed step of "inserting one or more

advertisements comprises splicing an advertising stream with a program stream,

wherein the advertising stream includes the one or more advertisements". "To enable

the inserting of different advertisements in compressed program streams, different

advertising breaks or splice points are identified. Splice points in a compressed program

stream provide opportunities to switch from one program to another. They indicate a

safe place to switch, a place in the bit stream, where a switch can be made, and result

in good visual and audio quality. They are analogous to the vertical (blanking) interval

used to switch uncompressed video. Unlike uncompressed video, frame boundaries in

an MPEG-2 bit stream are not evenly spaced. Therefore, the syntax of the transport

packet itself is used to convey where these splice points may occur" (Paragraph 0061).

In regard to claim 4, the claimed steps of "responsive to a command to begin splicing, identifying a splice point in the advertising stream", "buffering frames after the splice point in the advertising stream", "identifying a splice point in the program stream", "switching to the advertising stream" and "outputting an ad-inserted stream that includes frames from the program stream and advertising stream, whereby the program stream and advertising stream are adaptively synchronized by aligning the splice points to enhance the quality of video transmission" are met by Figures 6A and 6B. "There exists a plurality of standards in the current technologies that provides a description of splice points and other constraints for encoding and inserting in program streams, e.g., MPEG-2 transport streams. In systems utilizing MPEG-2, the transport streams may be spliced without modifying the Packetized Elementary Stream (PES) packet payload. The systems are in compliance with existing Society of Motion Picture and Television Engineers (SMPTE) standards, e.g., SMPTE 312M-1999, and the constraints specified in the standard are applied individually to program streams within transport streams. Splicing of MPEG bit streams also requires managing buffer fullness of the decoder's buffers. When MPEG bit streams are encoded, there is an inherent buffer occupancy at every point in time. The buffer fullness corresponds to a delay, the amount of time that a byte spends in the buffer. When splicing two separately encoded bit streams, the delay at the splice point will not usually match. This mismatch in delay can cause the buffer to overflow or underflow at some time in the future. To avoid unpredictable underflows and overflows, the splicing method requires that the MPEG encoder match the delay at

splicing points to a given value. Alternatively, the syntax of the transport packet itself

may be used to convey where these splicing points may occur"(Paragraphs 0062-0064).

In regard to claim 5, it is implied that N x M ad inserted streams are created,

where M represents the number of demographic groupings and N represents the

unmodified streams (See Paragraph 0054-0055).

In regard to claim 11, Eldering discloses the steps of "receiving subscriber

management information" and "selecting a particular advertisement based on the

subscriber management information" (See paragraphs 0004, 0033 and 0048).

In regard to claim 12, the claimed limitation of an "egress node" is met by Figure

4, Items 304 and 306. The claimed limitation of "a router for receiving the one or more

program streams" is met by the ring switch 118 (See Paragraph 0051). The claimed

limitation of "a storage element for storing advertisements" is met by Figure 4, Item 306

and Figure 5, Item 512 (See Paragraph 0056). The claimed limitation of "a splicer

element for inserting one or more of the stored advertisements into the one or more

program streams for delivery to individual subscribers" is met by Figures 6A and 6B

(See Paragraphs 0061). The claimed limitation of "wherein a particular subscriber

receives a program stream with an advertisement that corresponds to demographic

characteristics of that particular subscriber" is met by Figure 5 (See Paragraphs 0004,

0033 and 0048).

In regard to claim 13, Eldering discloses the claimed limitation of "one or more

program streams include splice points and wherein the splicer element splices an

advertising stream with a program stream, wherein the advertising stream includes one

or more stored advertisements" (See Paragraphs 0061-0066).

In regard to claim 14, the claimed limitation of "a plurality of input processors", "a

plurality of data buffers, each of the plurality of data buffers coupled to a corresponding

one of the plurality of input processors" and "responsive to a splice point being identified

in the advertising stream, one of the plurality of data buffers stores frames after the

splice point in the advertising stream, and wherein, responsive to a splice point being

identified in the program stream, the at least one output processor switches to the

advertising stream so that a single bitstream is provided as output that includes frames

from the program stream and advertising stream" are met by Figure 6A (See

Paragraphs 0063 and 0065).

In regard to claim 15, it is implied that N x M ad inserted streams are created,

where M represents the number of demographic groupings and N represents the

unmodified streams (See Paragraph 0054-0055).

In regard to claim 19, Eldering discloses "the service management system

provides subscriber management information to the egress node and, responsible to the

subscriber management information, the egress node selects and retrieves a particular

advertisement from the storage element based on the subscriber management

information" (See Paragraphs 0004, 0033 and 0048).

In regard to claim 20, the claimed limitation of "a head end node for transmitting

one or more program streams via the switched network" Figure 4, Item 302. The

claimed limitation of "at least one egress node for receiving the one or more program

streams, the egress node including a splicer element for inserting one or more

advertisements into the one or more program streams at the egress node for delivery to

individual subscribers" is met by Figures 4 and 5, Items 306 and 304 (See Paragraphs

0051 and 0061-0066).

In regard to claim 21, the claimed limitations of "an encoder for receiving and

encoding the program streams", "an encapsulator for converting the encoded program

streams into a format for transmission via the switched communication network" and "a

service management system in communication with the encoder, the encapsulator and

the switched communication network for provisioning and managing distribution of video

and demographically-targeted advertising" is met by Figure 3.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering.

In regard to claim 22, Eldering fails to explicitly disclose that the head end node

comprises a storage element for encoded program streams for time-delay delivery.

However, the examiner takes OFFICIAL NOTICE that it is notoriously well known in the

art to have a storage element at the head end for encoded program streams for time-

delay delivery as for the case of video-on-demand for increased functionality.

Consequently, it would have been obvious to on of ordinary skill in the art to modify

Eldering with a storage element for encoded program streams for time-delay delivery for

the stated advantage.

Claims 6-9 and 16-18 rejected under 35 U.S.C. 103(a) as being unpatentable

over Eldering in view of Bigham et al. (US Pat No 5,544,161).

In regard to claim 6, Eldering fails to explicitly disclose that the distributed

packets are over an ATM-based network. Bigham teaches the use of an ATM-based

network so as to provide a network with "broad-bandwidth, low delay, packet-like

switching and multiplexing". Consequently, it would have been obvious to one of

ordinary skill in the art to modify Eldering with an ATM-based network so as to provide a

network with "broad-bandwidth, low delay, packet-like switching and multiplexing".

In regard to claim 7, Eldering discloses multicasting the program streams via the

switched communications network (See Paragraph 0038).

In regard to claim 8, Eldering fails to explicitly disclose that the streams are

transmitted to the subscriber via a DSL interface. However, the examiner takes

OFFICIAL NOTICE that it is notoriously well known in the art to use a DSL interface so

as to connect to a network using existing telephonic infrastructure. Consequently, it

would have been obvious to on of ordinary skill in the art to modify Eldering with

streams that are transmitted to the subscriber via a DSL interface so that the subscriber

may connect to the network using existing telephonic infrastructure.

In regard to claim 9, Eldering fails to explicitly disclose that the streams are

transmitted to the subscriber via an Ethernet interface. However, the examiner takes

OFFICIAL NOTICE that it is notoriously well known in the art to use an Ethernet

interface so as to connect to an Ethernet network. Consequently, it would have been

obvious to on of ordinary skill in the art to modify Eldering with streams that are

transmitted to the subscriber via an Ethernet interface so as to connect to an Ethernet

network.

In regard to claim 16, t Eldering fails to explicitly disclose that the distributed

packets are over an ATM-based network. Bigham teaches the use of an ATM-based

network so as to provide a network with "broad-bandwidth, low delay, packet-like

switching and multiplexing". Consequently, it would have been obvious to one of

ordinary skill in the art to modify Eldering with an ATM-based network so as to provide a

network with "broad-bandwidth, low delay, packet-like switching and multiplexing".

In regard to claim 17, Eldering discloses multicasting the program streams via

the switched communications network (See Paragraph 0038).

In regard to claim 18, Eldering fails to explicitly disclose that the streams are

transmitted to the subscriber via a DSL interface or Ethernet interface. However, the

examiner takes OFFICIAL NOTICE that it is notoriously well known in the art to use a

DSL interface so as to connect to a network using existing telephonic infrastructure or

an Ethernet interface so as to connect to an Ethernet network. Consequently, it would

have been obvious to on of ordinary skill in the art to modify the combination of Simonin

and Wilkins with streams that are transmitted to the subscriber via either a DSL

interface or Ethernet interface so that the subscriber may connect to the network using

existing telephonic infrastructure or an Ethernet interface so as to connect to an

Ethernet network.

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

- Hoarty et al. (US Pat No 5,319,455).

- Schlack (US Par App Pub No 2002/0087975).

- Hinderks (US Par App Pub No 2001/0025377).

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to John Manning whose telephone number is 571-272-

7352. The examiner can normally be reached on M-F: 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

JM
January 6, 2006

JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600